Biomonitoring Study Guide

NPDES Compliance Monitoring Inspector Training
Biomonitoring, EPA, Aug. 1990

1) Whole Effluent Toxicity (WET) – What does the acronym WET measure and what are the reasons for using it? (1-2)

2) What is the concept of toxicity and what are adverse effects of toxicity? (1-3)

3) Discuss six purposes of toxicity testing? (1-4)

4) List and define three tests used in toxicity test design. (2-1)

5) Discuss responses that are commonly observed in toxicity tests. (2-3)

6) Discuss the concept of acute and chronic tests. (2-3)

7) Discuss flow-through, static renewal and static tests. (2-4)

8) Define the terms LC_{50}, EC_{50}, NOEC, LOEC, ChV and IC_{25}. (2-7)

9) What are two common freshwater organisms used in toxicity testing? (3-5)

10) Discuss sample containers and preservation. (3-3)

11) Discuss selection criterion for test organisms used in toxicity testing. (3-4)

12) Define "wild" organisms and why they are unacceptable for toxicity testing. (3-4)

13) Discuss the concept of acclimation. (6-6)

14) Discuss acceptable and unacceptable test containers and materials. (7-1)

    $\Rightarrow$ Not acceptable at any time: copper, galvanized metal, brass, lead or rubber.

15) Describe cleaning procedures for new plasticware, new glassware, glassware and stainless steel and glassware for algae use. (7-2)

16) Discuss the following control parameters: temperature, oxygen, pH, total alkalinity, total hardness, conductivity, total residual chlorine. (7-3)

17) Review tests and answers "Appendix A, Questions and Answers on the Biomonitoring Module. (A-1 to A-6)